

GENERAL BOARD OF HEALTH

R E P O R T

ON THE

RESULTS OF THE DIFFERENT METHODS OF TREATMENT

PURSUED IN

E P I D E M I C C H O L E R A

IN THE

PROVINCES THROUGHOUT ENGLAND AND SCOTLAND IN 1854:

BEING SUPPLEMENTAL TO

THE METROPOLITAN REPORT,

ADDRESSED TO THE

PRESIDENT OF THE GENERAL BOARD OF HEALTH

BY THE

TREATMENT COMMITTEE OF THE MEDICAL COUNCIL.

Presented to both Houses of Parliament by Command of Her Majesty.



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REPORT ON the TREATMENT OF EPIDEMIC CHOLERA in the provinces throughout ENGLAND and SCOTLAND in 1854, being Supplementary to the METROPOLITAN REPORT addressed to the PRESIDENT of the GENERAL BOARD OF HEALTH, by the TREATMENT COMMITTEE.

SUPPLEMENTARY REPORT ON the TREATMENT of CHOLERA in 1854.

IT is to be observed that in the body of the "Report on Treatment," the cases under examination were arranged in three classes, which the Committee proposed to consider separately.*

The two first classes, viz.:—

1st. Those which occurred in metropolitan hospitals.

2d. Those which occurred in metropolitan districts (not in hospitals).

Were so examined and arranged; but it was found that the materials for the third class, viz.,

3d. Those which occurred in the provincial districts, had not been wholly collected, and it was thought better to postpone the publication until the analysis could be complete. It is therefore now given in a supplementary form.

To this is appended an analysis of certain returns from metropolitan hospitals and other public institutions, which

* Although the plan on which the Inquiry has been prosecuted can scarcely be misunderstood, it may be well to explain, in regard to the classification of treatment, that every case has been arranged according to that remedy on which the practitioner appeared to have chiefly relied, which, therefore, might fairly be regarded as the prominent treatment; that is, in other words, where it appeared in the reports that certain medicines had been repeated, whilst other medicines or measures in the same case, had been used only occasionally or sparingly, that case has been placed in the class of treatment to which the former medicines belong, and the latter medicines have been recorded in the Tables as accessory or incidental measures. According to the mode of drawing up the returns, which on the late outbreak were forwarded to practitioners, no more precise classification was found to come within the range of possibility, and even in this, the only practicable mode of working the returns, the difficulty and labour have been excessive.

It must be obvious to every thinking person that actual doses could not be stated in the Tables without rendering the report immensely voluminous; on the present occasion, however, this difficulty had not to be considered, because, in the great majority of the returns, the doses were not furnished. The distinction between the two modes of giving calomel, whether in large doses, or in small ones frequently repeated, having been stated in the returns, has accordingly been noted in the Tables.

have been sent in to the General Board of Health since the Report on Treatment was printed.

Of 800 cases of cholera treated in the provincial districts of England and Scotland, of which—

418 cases occurred in England, and
382 ,, Scotland.

It appears that—

416 cases were treated by Alteratives,
162 ,, Astringents,
207 ,, Stimulants,
15 ,, Eliminants.

Of 416 cases treated by Alteratives in the provincial districts throughout England and Scotland, of which 212 occurred in England, and 204 in Scotland, it appears that—

		Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
					In Total Cases.	In Collapse Cases.
In 41 cases, calomel in small doses was given	-	33	9	33	80·4	100·
in 2 with salines.						
9 internal stimulants.						
10 external stimulants.						
5 opium.						
2 opium by glyster.						
1 venesection.						
In 177 cases calomel in larger doses was given	-	155	60	84	47·4	54·1
in 7 with salines.						
70 internal stimulants.						
18 external stimulants.						
5 hot air baths.						
8 venesection.						
76 chalk and opium.						
1 aperient.						
In 139 cases calomel with opium was given	-	95	87	43	30·9	45·2
in 10 with salines.						
1 aperients.						
28 internal stimulants.						
84 external stimulants.						
1 hot air baths.						
3 venesection.						
In 47 cases other preparations of mercury were given	-	39	12	26	55·3	66·6
in 1 with salines.						
32 internal stimulants.						
4 external stimulants.						
3 hot air baths.						
4 opium.						
13 opium by glyster.						
In 12 cases salines were given	-	9	3	9	75·	100·
in 2 with external stimulants.						
2 internal stimulants.						
1 hot air baths.						
1 opium by glyster.						

Of 162 cases treated by Astringents in the provincial districts throughout England and Scotland, of which 76 occurred in England, and 86 in Scotland, it appears that—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In Total Cases.	In Collapse Cases.
In 55 cases sulphuric acid was given - - in 4 with calomel. 3 catechu and other astringents. 9 opium. 5 opium by glyster. 17 external stimulants. 35 internal stimulants. 3 emetics.	45	8	36	65·4	80·
In 27 cases nitric, nitrous and nitro-muriatic acids were given. in 1 with external stimulants. 1 internal stimulants. 26 hot air baths.	21	3	11	40·7	52·3
In 10 cases chalk mixture was given - - in 3 with calomel. 2 salines. 4 catechu. 3 internal stimulants.	6	0	6	60·	100·
In 32 cases chalk and opium were given - - in 13 with calomel. 7 catechu. 8 external stimulants. 14 internal stimulants. 2 hot air baths.	18	14	13	40·6	72·2
In 12 cases opium was given - - - in 1 with calomel. 4 catechu. 5 external stimulants. 4 internal stimulants. 2 hot air baths.	7	5	6	50·	85·7
In 5 cases catechu, kino, &c. were given - - in 5 with external stimulants. 2 internal stimulants. 3 calomel. 3 opium.	5	2	3	60·	60·
In 21 cases acetate of lead and opium were given - in 9 with external stimulants. 8 internal stimulants. 1 an emetic. 1 opium by glyster.	16	10	16	76·1	100·

Of 207 cases treated by Stimulants in the provincial districts throughout England and Scotland, of which 128 occurred in England, and 79 in Scotland, it appears that—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In Total Cases.	In Collapse Cases.
In 12 cases ammonia was given - - - in 1 with ether. 2 chloroform. 1 emetics. 5 external stimulants. 7 brandy, wine, &c. 7 opium.	10	1	9	75·	90·
In 125 cases ether was given - - - in 107 with opium. 89 emetics. 11 ammonia. 1 chloroform. 3 calomel. 12 brandy, wine, &c. 90 external stimulants.	46	18	42	33·6	91·3
In 65 cases brandy was given - - - in 1 with emetics. 20 external stimulants. 26 hot air baths. 36 opium. 2 calomel.	47	6	50	76·9	100 +
In 5 cases other stimulants, chloroform, &c. were given. in 1 with hot bath. 2 opium.	5	3	2	40·	40·

Of 15 cases treated by Eliminants in the provincial districts throughout England and Scotland, of which 2 occurred in England, and 13 in Scotland, it appears that—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In Total Cases.	In Collapse Cases.
In 15 cases castor oil was given - - in 1 with opium. 10 external stimulants. 2 ice water. 1 venesection.	12	—	10	66·6	83·3

Table of the 800 cases treated in the provincial districts throughout England and Scotland, viz.—

In England - 418 cases.

In Scotland - 382 cases.

omitting the accessory remedies.

In England 212 } 416 cases treated by *Alteratives*.
In Scotland 204 }

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In Total Cases.	In Collapse Cases.
In 41 calomel, small doses - -	33	9	33	80·4	100·
177 calomel, larger doses - -	155	60	84	47·4	54·1
139 calomel with opium - -	95	87	43	30·9	45·2
47 other preparations of mercury -	39	12	26	55·3	66·6
12 salines - - - -	9	3	9	75·	100·

In England 76 } 162 cases treated by *Astringents*.
In Scotland 86 }

In 55 sulphuric acid - - -	45	8	36	65·4	80·
27 other mineral acids - -	21	3	11	40·7	52·3
42 chalk mixture and chalk and opium	24	14	19	45·2	79·1
21 acetate of lead and opium -	16	10	16	76·1	100·
12 opium - - - -	7	5	6	50·	85·7
5 catechu, kino, &c. - -	5	2	3	60·	60·

In England 128 } 207 cases treated by *Stimulants*.
In Scotland 79 }

In 12 ammonia - - - -	10	1	9	75·	90·
125 ether - - - -	46	18	42	33·6	91·3
65 brandy, - - - -	47	6	50	76·9	100+
5 chloroform - - - -	5	3	2	40·	40·

In England 2 } 15 cases treated by *Eliminants*.
In Scotland 13 }

In 15 castor oil - - - -	12	—	10	66·6	83·3
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In a comparison of the total number of cases with the deaths, the order of success is as follows :—

Alteratives.

Calomel and opium	-	-	-	30·9
Calomel (larger doses)	-	-	-	47·4
Other preparations of mercury	-	-	-	55·3
Salines	-	-	-	75·
Calomel (small doses)	-	-	-	80·4

Astringents.

Mineral acids (except sulphuric acid)	-	-	-	40·7
Chalk mixture and chalk and opium	-	-	-	45·2
Opium	-	-	-	50·0
Sulphuric acid	-	-	-	65·4
Acetate of lead and opium	-	-	-	76·1

Stimulants.

Ether	-	-	-	33·6
Ammonia	-	-	-	75·0
Brandy	-	-	-	76·9

Eliminants.

Castor Oil	-	-	-	66·6
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Per-centage of collapse cases, with the deaths; the more severe form of the disease :—

Alteratives.

Calomel and opium	-	-	-	45·2
Calomel (larger doses)	-	-	-	54·1
Other preparations of mercury	-	-	-	66·6
Calomel (small doses)	-	-	-	100·
Salines	-	-	-	100·

Astringents.

Mineral acids (not sulphuric)	-	-	-	52·3
Chalk mixture and chalk and opium	-	-	-	79·1
Sulphuric acid	-	-	-	80·0
Opium	-	-	-	85·7
Acetate of lead and opium	-	-	-	100·

Stimulants.

Ammonia	-	-	-	90·
Ether	-	-	-	93·
Brandy	-	-	-	100+

Eliminants.

Castor oil	-	-	-	83·3
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TABLE of the Total Number of Cases (3,727) of Cholera treated in Metropolitan Hospitals* and Districts, and in the Provincial Districts throughout England and Scotland, showing the Per-centage of Mortality.

	Collapse Cases.	Consecu- tive Fever.	Deaths.	Per-cent. of Deaths	
				In Total Cases.	In Collapse Cases.
<i>2,142 cases were treated by Alteratives.</i>					
637 calomel small doses - - -	416	94	315	49·4	75·7
767 „ larger doses - - -	590	160	353	46·0	59·8
472 „ with opium - - -	295	140	169	35·8	57·2
80 other preparations of mercury -	59	17	42	52·5	71·1
186 salines - - - -	140	40	94	50·5	67·1
<i>865 cases were treated by Astringents.</i>					
488 sulphuric acid - - - -	307	65	235	48·1	76·5
27 other mineral acids - - -	21	3	11	40·7	52·3
201 chalk mixture and chalk and opium	79	33	55	27·3	67·0
81 acetate of lead and opium - -	65	26	50	61·7	76·9
36 opium - - - -	15	14	11	30·5	73·3
13 preparations of iron and alum -	7	2	6	46·1	85·7
19 gallic acid and other astringents -	9	4	5	26·3	55·5
<i>548 cases were treated by Stimulants.</i>					
114 ammonia - - - -	90	18	70	61·4	77·7
154 ether - - - -	73	22	65	42·2	89·0
138 brandy - - - -	108	25	87	63·0	80·5
31 chloroform - - - -	23	7	15	48·3	65·2
111 other internal and external stimulants	80	16	50	45·0	62·
<i>172 cases were treated by Eliminants.</i>					
150 castor oil - - - -	134	19	104	69·3	77·6
21 emetics - - - -	21	1	17	80·9	80·9
1 olive oil - - - -	—	—	—	—	—

* The 179 cases in the Appendix, treated in Metropolitan Hospitals and other public institutions, are included in this Table.

Order of success in the different modes of treatment, in a comparison of the total number of cases with the deaths :—

	Per-centage of deaths in total cases.
† Gallic acid and other astringents - - - - -	26·3
Chalk mixture and chalk and opium - - - - -	27·3
† Opium - - - - -	30·5
Calomel and opium - - - - -	35·8
† Mineral acids (not sulphuric) - - - - -	40·7
* Ether - - - - -	42·2
External and internal stimulants - - - - -	45·0
Calomel (larger doses) - - - - -	46·0
† Alum and iron preparations - - - - -	46·1
Sulphuric acid - - - - -	48·1
† Chloroform - - - - -	48·3
Calomel (small doses) - - - - -	49·4
Salines - - - - -	50·5
† Other preparations of mercury - - - - -	52·5
Ammonia - - - - -	61·4
† Acetate of lead and opium - - - - -	61·7
Brandy - - - - -	63·0
Castor oil - - - - -	69·3
Emetics - - - - -	80·9

In a comparison of the collapse cases with the deaths :—

	Per-centage of deaths in collapse cases.
† Mineral acids (not sulphuric) - - - - -	52·3
† Gallic acid and other astringents - - - - -	55·5
Calomel and opium - - - - -	57·2
Calomel (larger doses) - - - - -	59·2
External and internal stimulants - - - - -	62·5
† Chloroform - - - - -	65·2
Chalk mixture and chalk and opium - - - - -	67·0
Salines - - - - -	67·0
† Other preparations of mercury - - - - -	71·1
† Opium - - - - -	73·3
Calomel (small doses) - - - - -	75·7
Sulphuric acid - - - - -	76·5
† Acetate of lead and opium - - - - -	76·9
Castor oil - - - - -	77·6
Ammonia - - - - -	77·7
Brandy - - - - -	80·5
† Emetics - - - - -	80·9
† Preparations of alum and iron - - - - -	85·7
Ether - - - - -	89·0

* In a large proportion of the cases, opium was given with the ether.

† Averages from a small number of cases.

Consecutive Fever.

Amongst the above-named 800 cases of Cholera in the provinces throughout England and Scotland, 234 cases of consecutive fever are reported to have occurred, or 29·2 per cent. Of these 75 occurred in England, or 17·9 per cent. ; 159 occurred in Scotland, or 41·6.

Of the treatment of consecutive fever in the provinces,—

56 cases were treated with salines, of which 21 died.

22	„	„	mercurials	„	6	„
101	„	„	aperients	„	8	„
1	„	„	diuretics	„		„
21	„	„	stimulants	„	14	„
3	„	„	external irritants	2		„
5	„	„	nourishment alone	2		„
In 23 the treatment is not recorded				-	-	3 „
2 were not treated by medicine				-	-	1 „

Of 234 cases 57 died, or 24·3 per cent.: a general mortality not exceeding the usual average.

In England of 75 cases 23 died, or 30·6 per cent.

In Scotland of 159 cases 34 died, or 21·3 per cent.

In England 4 cases are reported to have gone into consecutive fever without having been in collapse.

In Scotland 77 cases are similarly reported.

The most successful mode of treatment in consecutive fever, according to the foregoing Table, appears to have been by aperients.

In examining the remarkable proportion of consecutive fever in Scotland, it appears that in one district, Paisley,* 103 cases of consecutive fever have occurred in 110 cases of cholera. 50 of these only had collapse; 60 cases of cholera, therefore, went into consecutive fever without having been in collapse.

In all these cases, calomel and opium were used as the prominent treatment in the previous stages: there is no evidence in the returns, on this most interesting topic, whether the opium was given in any unusually large doses.

Fever is reported to have been prevalent at Paisley during the outbreak of cholera; but allowing certain weight to this latter cause, for the large number of cases which passed from cholera into consecutive fever, it is still a question, as they were all treated with calomel and opium,

* All these cases occurred in the practice of one practitioner.

whether the opium was given in large doses; in the latter case, the result would seem to correspond with the large proportion of cases of consecutive fever in the metropolitan hospitals, in which the use of opium, combined with chalk, appears to have been attended with like results.

In the present stage of these statistical investigations, it is desirable to invite a careful comparison of the results here stated with those recorded at page 14 of the Metropolitan Report. In any future extension of the inquiry, the quantity of the opium to be given is a question to be investigated with especial care. Should accumulated evidence bear the same character as that now obtained, it may lead to a demonstration that collapse may be superseded by the early use of opium, and it may then become a grave consideration how far it may be safe to induce the alternative of consecutive fever as the less unmanageable stage of the disease.

Many weighty arguments are worthy of consideration whilst waiting for further evidence; as, for instance, whether the degree of severity of the collapse may not influence, in a corresponding degree, the severity of the consecutive fever; but the duty of the Committee does not permit them to discuss this subject further, they merely throw out a hint of the nature of the service which these and further statistical materials may render to medical science.

Simple and Choleraic Diarrhœa passing into Cholera.

Of simple and choleraic diarrhœa passing into cholera, in the provincial districts throughout England and Scotland,—

866 cases are recorded, of which

448 occurred in England,

418 ,, Scotland.

Of the 448 cases in England, it is wholly unknown whether 343 were treated or not in either stage.

23 were known not to have been treated.

82 were known to have been treated by medicine, and passed into cholera.

In 6 cases diarrhœa is reported to have been “absent.”

Of the 418 cases in Scotland, it is wholly unknown whether 189 cases were treated or not.

74 were known to have received no medical aid.

155 were treated by medicine in both stages, and passed into cholera.

In 4 cases, diarrhœa is reported to have been “absent.”

Of 237 cases of diarrhoea passing into cholera, treated in the provincial districts, of which 82 occurred in England, 155 in Scotland, it appears that,

Alteratives.

18 cases were treated with calomel ;
 7 in conjunction with stimulants,
 1 „ „ astringents ;
 79 cases were treated with calomel and opium ;
 3 with internal stimulants,
 1 „ astringents,
 1 „ venesection ;
 13 cases were treated with salines ;
 12 with astringents.

Astringents.

8 cases were treated with chalk mixture ;
 1 in conjunction with calomel,
 1 „ „ aperients,
 1 „ „ stimulants ;
 66 cases were treated with chalk and opium ;
 23 with calomel,
 4 „ internal stimulants,
 1 „ external stimulants ;
 10 cases were treated with sulphuric acid ;
 4 with opium,
 1 „ astringents ;
 8 cases were treated with acetate of lead and opium ;
 5 cases were treated with opium.
 13 cases were treated with other astringents.

Stimulants.

14 cases were treated with internal stimulants.

Eliminants.

3 cases were treated with aperients.

Simple and Choleraic Diarrhœa not passing into Cholera.

Of 1,642 cases of simple and choleraic diarrhœa, which have not passed into cholera, treated in the provincial districts throughout England and Scotland, it appears that,—

Alteratives.

57 cases were treated with calomel ; 1 died ;

36 in conjunction with aperients,

3 " " aromatic confection,

2 " " salines,

5 " " stimulants.

338 cases were treated with calomel and opium ; 13 died ;

7 in conjunction with aperients,

160 " " aromatic confection,

46 " " other astringents,

2 " " salines,

32 " " stimulants,

14 " " external warmth.

13 cases were treated with other preparations of mercury.

18 cases were treated with salines ;

2 in conjunction with opium,

1 " " other preparations of mercury,

1 " " stimulants,

8 " " external warmth.

Astringents.

212 cases were treated with chalk mixture ; 3 died ;

5 in conjunction with calomel,

16 " " other preparations of mercury,

77 " " aromatic confection,

7 " " other astringents,

68 " " aperients,

4 " " stimulants,

3 " " external warmth.

412 cases were treated with chalk and opium ; 16 died ;

16 in conjunction with calomel,

36 " " other preparations of mercury,

38 " " mercurial aperients,

5 " " other aperients,

1 " " aromatic confection,

152 " " other astringents,

3 " " tonics,

18 " " stimulants,

3 " " external warmth.

363 cases were treated with sulphuric acid ; 5 died ;

61 in conjunction with opium,

9	„	„	calomel,
4	„	„	other preparations of mercury.
2	„	„	mercurial aperients,
4	„	„	astringents,
3	„	„	stimulants.

22 cases were treated with nitrous acid, in conjunction with stimulants.

63 cases were treated with acetate of lead ; 2 died ;

57 in conjunction with opium,

1	„	„	mercurial aperients,
1	„	„	other aperients,
4	„	„	astringents,
21	„	„	stimulants,
1	„	„	external warmth,
1	„	„	calomel.

53 cases were treated with opium ; 3 died ;

1 in conjunction with other preparations of mercury,

5	„	„	aperients,
4	„	„	mineral acids,
2	„	„	tonics,
2	„	„	stimulants,
18	„	„	external warmth.

5 cases were treated with persesquinitrate of iron ;

4 cases were treated with other astringents, catechu, kino, &c. ;

3 in conjunction with opium,

1	„	„	mercurial aperients.
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Stimulants.

68 cases were treated with stimulants ; 5 died ;

3 in conjunction with tonics,

18	„	„	opium,
28	„	„	other preparations of mercury,
4	„	„	aperients.

5 cases were treated with external stimulants.

Eliminants.

5 cases were treated with castor oil ;

4 in conjunction with opium,

1	„	„	stimulants.
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4 cases were treated with other aperients ;

3 in conjunction with mercury.

TABLE of CASES of SIMPLE and CHOLERAIC DIARRHŒA treated in the Provincial Districts of England and Scotland, which have not passed into Cholera, and also of Cases which have passed into Cholera; with the relative Per-centage of Failure to stay the Disease in its earlier stages under each mode of Treatment.

TREATMENT.	Cases of Diarrhoea which have not passed into Cholera, treated in the provincial districts of England and Scotland.		Cases of Diarrhoea which passed into Cholera, treated in the provincial districts of England and Scotland.	Total Cases of Diarrhoea treated in the provincial districts.	Per cent. of failure.	Or if the Deaths are included as failures.
	Cases.	Deaths.				
ALTERATIVES.						
Calomel - - -	57	1	18	75	24·0	25·3
Calomel with opium - -	338	13	79	417	18·9	22·0
Other preparations of mercury - - -	13	—	—	13	—	—
Salines - - -	18	—	13	31	41·9	—
ASTRINGENTS.						
Chalk Mixture - - -	212	3	8	220	3·6	5·0
Chalk and opium - - -	412	16	66	478	13·8	17·1
Sulphuric acid with and without opium - - -	363	5	10	373	2·6	4·0
Nitrous acid - - -	22	—	—	22	—	—
Acetate of lead with and without opium - - -	63	2	8	71	11·2	14·0
Opium - - -	53	3	5	58	8·6	13·7
Other astringents—catechu, kino, &c. - - -	9	—	13	22	59·0	—
STIMULANTS.						
Internal and external - -	73	5	14	87	16·0	21·8
ELIMINANTS - - -	9	—	3	12	25·0	—

Thus the order of per-centage of failure to stay the disease in its earlier stages, or in that of premonitory diarrhœa, is as follows :—

	Per Cent.	Or, including the Deaths as Failures, per Cent.
Catechu, kino, &c. - - -	59·	59·
Salines - - -	41·9	41·9
Eliminants - - -	25·0	25·0
Calomel - - -	24·0	25·3
Calomel and opium - - -	18·9	22·0
Stimulants - - -	16·0	21·8
Chalk and opium - - -	13·8	17·1
Acetate of lead and opium - -	11·2	14·0
Opium - - -	8·6	13·7
Chalk mixture - - -	3·6	5·0
Sulphuric acid and opium - -	2·6	4·0

The Returns from which the foregoing results have been obtained, have been filled up by the several practitioners, especially by those in Scotland, with considerable care and attention to the directions sent with the papers by the General Board of Health. The averages require little comment, except that on the whole they correspond with the average results of the Metropolitan Reports.

In this supplementary Report a Table is furnished (page 7) giving a collective statement of the whole number of cases examined in the Metropolitan Report, combined with the provincial cases noticed in the supplement and the metropolitan cases in the Appendix. It is worthy of remark, that the general averages of the cases, including the provincial, maintain exactly the same position in the order of success as was displayed in the Metropolitan Returns, with the single and small exception of sulphuric acid, which now precedes castor oil, leaving the latter to occupy the lowest place.

The two results are seen together, thus :—

					Per-Centage of Deaths in Total Cases.	
					Metropolitan Per-Centage.	Metropolitan and Provincial combined Per-Centage.
Of Eliminants	-	-	-	-	71·7	76·0
Stimulants	-	-	-	-	54·0	52·3
Alteratives (calomel and opium)	-	-	-	-	36·2	35·8
Astringents (chalk and opium)	-	-	-	-	20·3	27·3

					Per-Centage of Deaths in Collapse Cases.	
					Metropolitan Per-Centage.	Metropolitan and Provincial combined Per-Centage.
Calomel and opium	-	-	-	-	59·2	57·2
Calomel (large doses)	-	-	-	-	60·9	59·2
Salines	-	-	-	-	62·9	67·0
Chalk and opium	-	-	-	-	63·2	67·0
Calomel (small doses)	-	-	-	-	73·9	75·7
Castor oil	-	-	-	-	77·6	77·6
Sulphuric acid	-	-	-	-	78·9	76·5

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ANALYSIS OF CERTAIN RETURNS OF CHOLERA and of SIMPLE and CHOLERAIC DIARRHŒA, treated in the METROPOLITAN HOSPITALS and other PUBLIC INSTITUTIONS.

[The Returns were sent in to the General Board of Health too late to be included in the former report.]

CHOLERA.

Of 179 cases of cholera treated in Metropolitan Hospitals and other public institutions, there have been,—

60	cases treated by	Alteratives.
47	„ „	Astringents.
61	„ „	Stimulants.
11	„ „	Eliminants.

Of the 60 cases treated by Alteratives in Metropolitan Hospitals and other public institutions, it appears that,—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per-cent. of Deaths,	
				In Total Cases.	In Collapse Cases.
In 12 cases calomel was given in small doses frequently repeated. in 1 with salines. 5 calomel in larger doses. 2 opium. 2 internal stimulants. 11 external stimulants. 8 hot air. 10 emetic. 10 ice.	11	5	7	58·3	63·6
In 8 cases calomel was given, larger doses, at longer intervals. in 6 with salines. 1 internal stimulants. 1 external stimulants. 2 hot air. 1 emetic. 2 ice.	7	1	8	10·0	100+
In 32 cases calomel with opium was given In 15 with astringents. 2 salines. 6 internal stimulants. 5 external stimulants. 9 hot air. 7 emetics. 7 ice.	16	7	17	53·1	100+

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths,	
				In Total Cases.	In Collapse Cases.
In 8 cases salines were given - -	7	3	7	87.5	100
In 1 with aperients.					
6 internal stimulants.					
3 external stimulants.					
6 hot air.					
1 opium by glyster.					
7 emetics.					

Of the 47 cases treated by Astringents in Metropolitan Hospitals and other public institutions, it appears that,—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths,	
				In Total Cases.	In Collapse Cases.
In 25 cases sulphuric acid was given - -	20	6	8	32	40
In 2 with calomel.					
9 opium.					
1 aperients.					
20 external stimulants.					
11 internal stimulants.					
9 emetics.					
17 hot air.					
18 ice.					
In 7 cases chalk with opium was given -	6	3	5	71.4	83.3
In 2 with calomel.					
1 aperients.					
5 external stimulants.					
4 internal stimulants.					
3 hot air.					
In 1 case alum mixture was given with external and internal stimulants, emetic, hot air, and ice.	1	0	1	100	100
In 14 cases acetate of lead with opium was given.	14	3	11	78.5	78.5
in 1 with astringents.					
7 external stimulants.					
8 internal stimulants.					
2 emetic.					
10 hot air.					
12 ice.					
5 bismuth.					

Of the 61 cases treated by Stimulants in Metropolitan Hospitals and other public institutions, it appears that,—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In total Cases.	In Collapse Cases.
In 3 cases brandy was given In 1 with emetic. 1 hot air.	—	1	—	—	—
In 58 cases emetic, external stimulants, hot baths, and ice water were given. In 2 with chloroform. 3 calomel. 2 ammonia. 4 musk. 1 camphor. 6 creosote. 1 internal stimulants. 2 opium.	57	11	31	53·4	54·3

Of the 11 cases treated by Eliminants, it appears that,—

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths.	
				In total Cases.	In Collapse Cases.
In 11 cases castor oil was given In 10 with emetics. 10 external stimulants. 10 external warmth. 10 ice water.	10	1	7	63·6	70·

Table of the 179 cases treated in Metropolitan Hospitals and other public institutions, omitting the accessory treatment.

60 cases were treated by *Alteratives*.

	Collapse Cases.	Consecutive Fever.	Deaths.	Per Cent. of Deaths,	
				In Total Cases.	In Collapse Cases.
12 calomel, small doses	11	5	7	58·3	63·6
8 calomel, larger doses	7	1	8	100·	100+
32 calomel, with opium	16	7	17	53·1	100+
8 salines	7	3	7	87·5	100·

47 cases were treated by *Astringents*.

	Collapse Cases.	Consecutive Fever.	Deaths.	Per cent. of Deaths,	
				In Total Cases.	In Collapse Cases.
25 sulphuric acid - - - -	20	6	8	32·	40·
7 chalk and opium - - - -	6	3	5	71·4	83·3
1 alum mixture - - - -	1	—	1	100·	100·
14 acetate of lead and opium - -	14	3	11	78·5	78·5·

61 cases were treated by *Stimulants*.

3 brandy - - - -	—	1	—	—	—
58 emetic, external stimulants, hot baths, and ice water - - - -	57	11	31	53·4	54·3

11 cases were treated by *Eliminants*.

11 castor oil - - - -	10	1	7	63·6	70·
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Comparing the total number of cases with the deaths, *Astringents* (sulphuric acid) stand at the head of the list.

The order of success in the treatment of the more severe forms of the disease, those namely, which were accompanied with collapse, is as follows:—

Sulphuric acid - - -	40·0
External stimulants, hot bath, and an emetic - - -	54·3
Calomel, in small doses - -	63·6
Castor oil - - -	70·0
Acetate of lead and opium -	78·5
Chalk and opium - - -	83·3
Salines - - -	100·
Calomel in large doses - -	100+
Calomel and opium - - -	100+

These average results differ considerably from those given in the former Tables of cases treated in Metropolitan Hospitals.

It should be understood by those who are not in the habit of studying statistics, that the above small number of cases can afford no means of arriving at a definite statistical result; since, were limited portions to be extracted at random from any large statistical numbers, they would in all probability show a very different average to the mean of the whole mass.

The following Table shows in the first column the percentage of deaths in the total number of hospital cases, as given in the former Report; in the next column the percentage of deaths, when to the foregoing are added the supplementary cases examined in the Appendix; the third column gives the per centage of deaths of the collapse cases, as in the former Report; and the fourth, the same added to the collapse cases of the Appendix, showing in how slight a degree the original average is influenced by the addition.

	Per-centage of Deaths.			
	In total Cases.		In Collapse Cases.	
	Former Average.	United Average.	Former Average.	United Average.
<i>Alteratives.</i>				
Calomel, small doses - - -	50·0	51·5	76·1	73·3
Calomel, larger doses - - -	48·2	49·3	56·7	58·0
Calomel and opium - - -	41·9	44·5	62·8	70·9
Salines - - -	50·3	52·5	64·0	66·3
<i>Astringents.</i>				
Sulphuric acid - - -	57·6	54·3	79·6	74·1
Chalk and opium - - -	30·5	37·2	64·7	69·5
Alum mixture - - -	44·4	50·0	100·+	100·+
Acetate of lead and opium - -	55·5	69·5	83·3	80·0
<i>Stimulants.</i>				
Brandy - - -	64·1	59·5	65·7	65·7
Internal and external stimulants ..	33·3	48·6	100·0	58·7
<i>Eliminants.</i>				
Castor oil - - -	73·0	71·9	77·0	76·1

Consecutive Fever.

Of 41 cases of consecutive fever returned from the metropolitan hospitals and other public institutions it appears that—

In 7 cases the treatment was not known; 4 deaths.

11 cases were treated with salines; 6 deaths.

3 in conjunction with tonics,

3 „ „ stimulants,

1 „ „ „ and local depletion,

1 „ „ „ aperients and tonics,

1 „ „ local depletion,

1 „ „ general depletion,

1 „ „ saline injection.

1 case was treated with mercurials in conjunction with stimulants and opium ;

1 case was treated with diuretics ;

1 case was treated with tonics in conjunction with local depletion ;

20 cases were treated with stimulants ; 9 deaths.

2 in conjunction with external irritants,

4 „ „ astringents,

2 „ „ tonics,

3 „ „ local depletion,

1 „ „ „ and tonics,

1 „ „ acetate of lead and opium.

Of 41 cases of consecutive fever, 32 cases had collapse, of whom 18 recovered and 14 died ; 9 were without collapse, of whom 4 recovered and 5 died.

Simple and Choleraic Diarrhœa passing into Cholera.

Of simple cholera and choleraic diarrhœa passing into cholera in metropolitan hospitals and other public institutions, 180 cases are recorded.

In 90 of these cases it is wholly unknown whether they were treated or not in either of the stages of premonitory diarrhœa ;

In 1 case diarrhœa is reported to have been absent ;

33 were known not to have received any treatment ;

56 were treated by medicine in both stages of diarrhœa, and passed into cholera.

Of the 56 cases of diarrhœa passing into cholera, treated in the metropolitan hospitals and other public institutions, it appears that—

Alteratives.

1 case was treated with calomel ;

6 cases were treated with calomel and opium ;

2 in conjunction with external stimulants,

1 „ „ astringents,

1 „ „ aperients.

2 cases were treated with salines.

Astringents.

10 cases were treated with chalk mixture ;
 2 in conjunction with aromatic confection,
 3 " " aperients,
 2 " " stimulants.

5 cases were treated with chalk and opium ;
 1 in conjunction with internal stimulants,
 2 " " external stimulants.

7 cases were treated with sulphuric acid ;
 1 in conjunction with astringents,
 1 " " aperients,
 1 " " external stimulants.

1 case was treated with acetate of lead and opium in conjunction with external stimulants.

Stimulants.

18 cases were treated with stimulants (internal and external) ;

4 in conjunction with opium,
 1 " " creosote,
 2 " " aperients.

Eliminants.

6 cases were treated with aperients.

Simple and Choleraic Diarrhœa not passing into Cholera.

Of 296 cases of diarrhœa which have not passed into cholera, treated in the metropolitan hospitals and other public institutions, it appears that—

Alteratives.

1 case was treated with calomel ;
 42 cases were treated with calomel and opium ;
 3 in conjunction with aperients.
 33 " " aromatic confection,
 4 " " other astringents,
 1 " " mineral acids,
 1 " " stimulants.

46 cases were treated with salines ;
 5 in conjunction with calomel,
 3 " " mercurial aperients,
 9 " " other aperients,
 25 " " external warmth

Astringents.

4 cases were treated with chalk mixture ;

1 in conjunction with aperients,

1 " " external warmth.

97 cases were treated with chalk and opium, 5 died ;

1 in conjunction with calomel,

1 " " other preparations of mercury,

20 " " mercurial aperients,

50 " " other aperients,

5 " " astringents,

4 " " stimulants,

5 " " external warmth

72 cases were treated with sulphuric acid ;

24 in conjunction with opium,

3 " " calomel,

26 " " mercurial aperients,

5 " " other aperients,

5 " " astringents,

1 " " tonics,

6 " " stimulants,

2 " " external warmth.

7 cases were treated with acetate of lead ;

7 in conjunction with opium,

5 " " mercurial aperients,

1 " " astringents,

1 " " mineral acids.

Stimulants.

5 cases were treated with stimulants ;

1 in conjunction with opium,

3 " " mineral acids.

8 cases were treated with external stimulants in conjunction with emetic and ice.

Eliminants.

3 cases were treated with castor oil ;

2 in conjunction with opium,

1 " " astringents.

Table of "Cases of Simple and Choleraic Diarrhoea" treated in the metropolitan hospitals and other public institutions, which have not passed into cholera, and also of cases of simple and choleraic diarrhoea which have passed into cholera, with the relative per-centage of failure to stay

the disease in its earlier stages, under each mode of treatment.

Treatment.	Cases of Diarrhoea which have not passed into Cholera.		Cases of Diarrhoea which passed into Cholera.	Total Cases of Diarrhoea.	Per Cent. of Failure.	Or if the Deaths are included as Failures.
	Cases.	Deaths.				
<i>Alteratives.</i>						
Calomel - - -	1	—	1	2	50·0	—
Calomel with opium - -	42	—	6	48	12·5	—
Salines - - -	46	—	2	48	4·1	—
<i>Astringents.</i>						
Chalk Mixture - - -	4	—	10	14	71·4	—
Chalk and opium - - -	97	5	5	102	4·9	9·8
Sulphuric acid with and without opium - -	72	—	7	79	8·8	—
Acetate of lead and opium	7	—	1	8	12·5	—
<i>Stimulants</i> (internal and external) - - -						
	13	—	18	31	58·0	—
<i>Eliminants</i> - - -						
	3	—	6	9	66·6	—

The order of per-centage of failure to stay the disease in its earlier stages, is as follows :—

	Per Cent. of Failures ;	or, If Deaths be included.
Chalk mixture - - -	71·4	—
Eliminants - - -	66·6	—
Stimulants - - -	58·0	—
Calomel - - -	50·0	—
Acetate of lead and opium - -	12·5	—
Calomel and opium - - -	12·5	—
Sulphuric acid - - -	8·8	—
Chalk and opium - - -	4·9	9·8
Salines - - -	4·1	—

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